Conclusions for chapter 8.

Although laboratory toxicity and sublethal tests are currently available for evaluating potential effects of chemicals on adults and larval bees, no agreement exists among different regulators on which ones to focus on- for further development. The participants dealing with laboratory testing improvements agreed that priority should be given to developing the larval *in vitro* test, for application as a standard tier 1 study within ~~in high throughput applications, such as in~~ regulatory frameworks. ~~is a high priority change to be adopted in the shortest possible time, and the~~ ~~Details provided in the appendix should facilitate this.~~ Participants also agreed that the regulatory testing framework incorporate sublethal endpoints (e.g., changes in behavior or body condition) measurable at the individual level (adult or larval) when research has shown such effects may affect colony population dynamics and reproduction. ~~tests enumerated here are likely candidates for improving the a tiered testing system, as described by this effort. Also of priority is and further hypothesis testing in order to link these observed effects observed at the individual-level (adult or larval) on individual adult and larval bees to measurable apical end points which affecting colony population dynamics and colony reproduction, should be given a high research priority.~~ Participants also agreed that efforts should be made to expand the range of test species to include two or more non-*Apis* bees to address concerns that *Apis mellifera* may not be an adequate surrogate for non-*Apis* bees with considerably different life cycles. ~~the honey bee is not an adequate surrogate species for most nonApis bees and that multiple species are available to choose as indicators of the sensitivity of the ecosystems of different countries. Adding two or more non-Apis bees to a pollinator testing framework would be an important is a realistic goal among the EU, US, and Canada in the near term.~~

~~For the sentence above, it could be replaced with:~~
~~Participants agreed that in understanding potential risk from pesticides, species other than the honey bee would be important to consider as differences between Apis and non-Apis species (e.g., biological, evolutionary, or behavioral) may render a different risk picture between these species.~~

Commented [UEUoC1]: Jim, what details are you referring to. There are three appendices that deal with lab testing … but they are crafted in a way that provides conclusions on measures to improve in vitro lab tests.

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Commented [UEUoC2]: I am uncomfortable with this statement.
To some degree, the rest of the manuscript talks about the appropriatness of Apis-m as a surrogate for other species (… actually, what it really says is that other species ought to be considered in addition to Apis-m) … but does not say that Apis is not a good surrogate.
This would be contrary to the Workshop.